

# Applied Clinical Informatics

## Syllabus Winter 2019

### Instructor

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Office hours: Fridays 12:30-2:30pm in 3438 NQ

### Course Description

This course provides students with exposure to decision-making about information systems in real-world clinical settings. Students will engage with clinicians to understand their workflows and processes within the context of their organizations. Through in-class discussions, group projects, reports, and presentations, students will consider the complex range of factors that affect the implementation of clinical information systems. Students will also learn to develop persuasive, strategic recommendations and conduct effective technology implementation evaluations.

### Learning Objectives

Upon successful completion of this course, students will be able to:

1. Apply basic knowledge of the range of constraints and factors that affect adoption of clinical information systems
2. Critically analyze clinical workflow and processes within their organizational contexts
3. Generate and effectively communicate recommendations for real-world implementation of clinical information systems using principles of change management and interdisciplinary leadership
4. Evaluate the effectiveness of technology implementations in health care

### Readings

Readings will primarily come from the textbook:

Finnell, J. T., & Dixon, B. E. (Eds.). (2015). *Clinical informatics study guide: Text and review*. Springer.

Two case studies are available here: <https://hbsp.harvard.edu/import/599784>.

### Assignments and Activities

- **Lead class discussion on readings.** Sign up for [a date here](#) to lead discussion on the week's reading(s). Drawing from your professional experiences as well as what you are learning about your site, connect key topics from the readings to real-world examples. You should not cover all content in the reading(s). Your task is to ensure we get the key takeaways, without getting lost in all of the details. You should decide how to balance both some breadth and depth of topics, and your own experiences, interests, and clarification questions should inform the choices you make. Extra credit for creative presentations and engagement with the topic.
- **Discussion questions.** Each week, 24 hours before the start of class you will submit two discussion questions drawing from the week's reading(s): (1) A question you would pose to an expert on that topic, and (2) An ethical dilemma with no clear "right" answer, that we can debate as a class.
- **One-page argumentative essays.** Responding to the prompt provided, put together a reasoned and well-researched argument that would persuade a key target audience (e.g., clinicians, managers, administration, IT). You will draw primarily from the assigned reading, and should dig deeper into work referenced by the assigned reading. Single spaced or 1.5 spacing, one page not including references, and rest of formatting is your choice as long as it looks professional.

## **Grading**

- 10% Participation grade will be determined based on attendance, contributions to all in-class discussions, leading one discussion on a chapter (5%), and group work as measured in part by peer evaluations
- 15% Discussion questions (1% each, lowest score dropped)
- 15% One-page argumentative essays (3 at 5% each)
- 60% Workflow analysis project will be graded incrementally at each phase, including both individual and group grades, and students will receive feedback to incorporate for each following phase (5% individual observation notes, 10% individual first draft, 10% group presentation, 15% group final report)

## **Academic Integrity and Misconduct**

**Collaboration.** UMSI strongly encourages collaboration while working on some assignments, such as homework problems and interpreting reading assignments as a general practice. Active learning is effective. Collaboration with other students in the course will be especially valuable in summarizing the reading materials and picking out the key concepts. You must, however, write your homework submission on your own, in your own words, before turning it in. If you worked with someone on the homework before writing it, you must list any and all collaborators on your written submission. Each course and each instructor may place restrictions on collaboration for any or all assignments. Read the instructions carefully and request clarification about collaboration when in doubt. Collaboration is almost always forbidden for take-home and in class exams.

**Plagiarism.** All written submissions must be your own, original work. Original work for narrative questions is not mere paraphrasing of someone else's completed answer: you must not share written answers with each other at all. At most, you should be working from notes you took while participating in a study session. Largely duplicate copies of the same assignment will receive an equal division of the total point score from the one piece of work.

You may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. If you build on the ideas of prior authors, you must cite their work. You may obtain copy editing assistance, and you may discuss your ideas with others, but all substantive writing and ideas must be your own, or be explicitly attributed to another. See the (Doctoral, MSI, MHI, or BSI) student handbooks available on the UMSI intranet for the definition of plagiarism, resources to help you avoid it, and the consequences for intentional or unintentional plagiarism.

## **Accommodations for Students with Disabilities**

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the activities, and the way the course is usually taught may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Services for Students with Disabilities (SSD) office to help us determine appropriate academic accommodations. SSD (734-763-3000; <http://ssd.umich.edu>) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. Any information you provide is private and confidential and will be treated as such.

## **Student Mental Health and Wellbeing**

The University of Michigan is committed to advancing the mental health and wellbeing of its students, while acknowledging that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> during and after hours, on weekends and holidays or through its counselors physically located in schools on both North and

Central Campus. You may also consult University Health Service (UHS) at (732) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see [www.uhs.umich.edu/aodresources](http://www.uhs.umich.edu/aodresources). For a more comprehensive listing of the broad range of mental health services available on campus, please visit: <http://umich.edu/~mhealth/>.